

REMARKS

Claims

By the present amendment six (6) independent claims are amended, zero (0) independent claims are added, six (6) dependent claims are added, and zero (0) claims are cancelled. Fees for 6 dependent claims are believed payable.

Claims 1, 2, 33, 50, 57 and 58 have been amended to expedite prosecution and to focus the present application on an embodiment of the invention in which a contaminant is removed from the substrate in presence of at least one organic solvent and in absence of pressurized fluid solvent, a portion of the organic solvent is removed from the substrate in the absence of pressurized fluid solvent and, subsequently, a remaining portion of the organic solvent is removed from the substrate using at least one pressurized fluid solvent.

Support for amended Claim 1 can be found in the specification as filed at least at page 23, lines 30 – 31, page 24, lines 1 – 3, page 24, lines 30 – 31, and page 32, lines 21 - 31.

Support for amended Claim 2 can be found in the specification as filed at least at page 23, lines 30 – 31, page 24, lines 1 – 3, page 24, lines 30 – 31, and page 32, lines 21 - 31.

Support for amended Claim 33 can be found in the specification as filed at least at page 23, lines 30 – 31, page 24, lines 1 – 3, page 24, lines 30 – 31, and page 32, lines 21 - 31.

Support for amended Claim 50 can be found in the specification as filed at least at page 23, lines 30 – 31, page 24, lines 1 – 3, page 24, lines 30 – 31, and page 32, lines 21 - 31.

Support for amended Claim 57 can be found in the specification as filed at least at page 23, lines 30 – 31, page 24, lines 1 – 3, page 24, lines 30 – 31, and page 32, lines 21 - 31.

Support for amended Claim 58 can be found in the specification as filed at least at page 23, lines 30 – 31, page 24, lines 1 – 3, page 24, lines 30 – 31, and page 32, lines 21 - 31.

Support for new Claims 103 - 108 can be found in the specification as filed at least at page 31, line 18 – page 32, line 19.

No new matter is introduced and no change in inventorship is believed to result from the amendments proposed herein.

RESPONSE TO OFFICE ACTION DATED JULY 8, 2003

In the Office Action dated July 8, 2003, claims 1 – 102 were rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Patent No. 5,370,742 (Mitchell) and United

States Patent No. 5,683,977 (Jureller). Claims 1 – 102 stand rejected under 35 U.S.C. § 102(b) as being anticipated by United States Patent No. 5,866,005 (DeSimone). Claims 1 – 102 stand rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement. Claims 103 – 108 are added by the present amendment.

I. Rejection under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,370,742 to Mitchell and U.S. Patent No. 5,638,977 to Jureller.

Claims 1 – 102 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Mitchell and Jureller. This rejection is respectfully traversed.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the references' teachings. Second, there must be a reasonable expectation of success. Finally, the references when combined must teach or suggest all the claim limitations. *See* MPEP § 2143.

The burden of establishing a *prima facie* case of obviousness lies with the Examiner. In determining obviousness, one must focus on the invention as a whole. *Symbol Technologies Inc. v. Opticon, Inc.*, 19 USPQ 2d 1241, 1246 (Fed. Cir. 1991). The primary inquiry is: “[w]hether the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have had a reasonable likelihood of success...Both the suggestion and the expectation of success must be found in the prior art, not the applicant’s disclosure.” *In re Dow Chemical*, 5 USPQ 2d 1531 (Fed. Cir. 1988). Furthermore, prior art that teaches away from the claimed invention is a strong indication of nonobviousness. *In re Soni*, 54 F.3d 746 (Fed. Cir. 1995).

As will be discussed in detail below, one of ordinary skill in the art, at the time of Applicants’ instant invention, would not have been motivated to combine Mitchell and Jureller as proposed by the Office Action. By contrast, the Applicants respectfully submit that a person of ordinary skill in the art, reading Mitchell and Jureller at the time of Applicants’ invention, would have been led in a direction divergent from that which Applicants took. Furthermore, each of Applicants’ claim limitations is not disclosed in any combination of Mitchell and Jureller. Consequently, these references, either alone or in combination, do not establish a *prima facie* case of obviousness.

1. No suggestion or motivation to combine Mitchell and Jureller: both references teach away from Applicants' invention.

Prior art that teaches away from the claimed invention goes against any finding of motivation to combine or modify the prior art. A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be led in a direction divergent from the path that the applicant took. See *In re Gurley*, 27, F.3d 551, 31 USPQ 2d 1130, 1131 (Fed. Cir. 1994). As will be discussed below, at the time of Applicants' invention, both Mitchell and Jureller would have led a person of ordinary skill in the art in a direction divergent from that taken by the Applicants.

A. Mitchell teaches away by disclosing pre-treatment, not contaminant removal with organic solvent.

The Examiner states that Mitchell discloses the steps of contacting a fabric with an organic solvent and removing the solvent with the aid of liquid carbon dioxide, and that if organic solvent is added to bulk carbon dioxide solution, the stain removal process can be impeded (Office Action, p. 4-5). The Examiner also states that while Applicants' solvents are not disclosed in Mitchell, they are disclosed in Jureller and that a person of ordinary skill in the art would have been motivated combine Mitchell with Jureller to avoid impeding the cleaning action (Office Action, p. 5). The Examiner further states that one of ordinary skill in the art would, at the time of Applicants' invention, have selected the solvents of Jureller for their compatibility with liquid carbon dioxide (Office Action, p.5).

However, in making this rejection, Applicants respectfully submit that the Examiner has not read Mitchell as a whole. (*See e.g. Akzo N.V. v. United States Int'l Trade Comm'n*, 808 F.2d 469, 473 5 USPQ 2d 1241, 1246 (Fed. Cir. 1986), cert. denied, 482 U.S. 909 (1987) ("prior art references...must be read as a whole and consideration must be given where the references diverge and teach away from the claimed invention...")). The Examiner relies on Mitchell's optional pre-treatment disclosure as essentially being the same thing as Applicants' contaminant removal step. In fact, however, Mitchell's pre-treatment disclosure actually teaches away from Applicants' invention as embodied in Claims 1, 2, 33, 50, 57, and 58, as amended herein, (and all claims depending therefrom) because "pre-treatment" is much different than "removal".

Mitchell discloses that a substrate optionally may be pre-treated prior to subsequent cleaning by contacting a fabric to be cleaned with an organic solvent. Importantly, such pre-treatment is very different from the contaminant removal step required by Applicants' Claims 1, 2, 33, 50, 57, and 58, as amended herein (and all claims depending therefrom). Applicants' pending claims call for a process having, *inter alia*, a step of cleaning a substrate for a period of time sufficient to "**remove** a desired level of a contaminant" from the substrate with at least one organic solvent in absence of liquid carbon dioxide. Applicants' use of the word "remove" indicates that at least some of the contaminant is actually *removed, separated from, or eliminated from* the textile during this step. This is clear from Applicants' specification (*See e.g.* page 23. lines 23 –29) and from the very definition of the word "remove" (*See American Heritage Dictionary 2000 (4th Ed.) attached hereto that defines the verb "Remove" as meaning 1. To move from a place or position occupied....2. To transfer or convey from one place to another...and 5. To do away with; eliminate: remove a stain.*). Contaminant removal with at least one organic solvent is an important feature of Applicants' invention as embodied in these pending claims.

Mitchell's disclosure, on the other hand, expressly and directly teaches away from removal of a contaminant with organic solvent in the absence of CO₂. Instead, Mitchell teaches optional **pre-treatment** in which a fabric is merely contacted with an organic solvent before the actual cleaning process (*i.e.*, before any removal of contaminant) takes place. In other words, according to the Mitchell disclosure, even if the optional pre-treatment step is practiced, no contaminant removal takes place until a later stain removal step (that necessarily occurs in the presence of CO₂) is performed. This is clear from Mitchell's own disclosure. For example, at Col. 5, lines 38 – 45, Mitchell states that (emphasis added):

Stained and soiled garments are pretreated with a formula designed to work in conjunction with CO₂. This pretreatment may include a bleach and activator and/or the synergistic cleaning adjunct. The garments are **then** placed into the cleaning chamber. As an alternate method, the pretreatment may be sprayed onto the garments after they are placed in the chamber, but prior to addition of CO₂. The chamber is filled with CO₂ and programmed through the appropriate pressure and temperature **cleaning** pathway...

Furthermore, at Col. 8, lines 30 – 35, Mitchell illustrates a situation in which (emphasis added):

[f]ive grams of the pretreatment formulation [were] droppered onto stained and soiled wool swatches. The swatches were **then** immediately placed into the cleaning chamber, and **cleaned** in CO₂ at 2500 psi and 40 °C with agitation.

These passages unequivocally indicate that pre-treatment according to Mitchell is a step that occurs before any stain **removal** takes place. Mitchell's use of the adverb "then" clearly indicates that pre-treatment occurs first and is subsequently (in time and order) followed by a step of cleaning that occurs in the presence of CO₂. Furthermore, any and all stain removal, according to Mitchell, takes place exclusively after a fabric is subsequently combined with CO₂, for example in a cleaning chamber that is programmed through a cleaning pathway. (*See e.g.* Col. 5, lines 42 – 49).

In sum, Mitchell teaches away from contaminant removal with an organic solvent by limiting the use of any co-solvent to a pre-treatment step, followed only then by actual cleaning. Pre-treatment, as discussed above, is very different from contaminant removal as defined by Applicants' pending claims. Importantly, as was pointed out by the Federal Circuit in *Fromson v. Anitec Printing Plates, Inc.*, "[t]hat an inventor has probed the strengths and weaknesses of the prior art and discovered an improvement that escaped those who came before is indicative of **unobviousness**, not obviousness." 132 F.3d 1437, 45 USPQ 2d 1269, 1276 (Fed. Cir. 1997), cert denied, 119 S. Ct. 56 (1998).

B. Mitchell further teaches away by teaching that all stain removal occurs in the presence of CO₂.

Mitchell further teaches away from Applicants' invention as embodied in pending claims 1, 2, 33, 50, 57, and 58, as amended herein (and all claims depending therefrom) by Mitchell's expressly teaching that **any and all** stain removal necessarily occurs in the **presence of** CO₂. By contrast, Applicants' invention, as embodied in the presently pending claims, is directed to a process comprising a step of cleaning a substrate for a period of time sufficient to remove a desired level of a contaminant from the substrate with at least one organic solvent in **absence of** pressurized fluid solvent (*e.g.* liquid carbon dioxide). This step is not disclosed or suggested by Mitchell or Jureller.

The Examiner's attention is respectfully drawn to Examples 1 and 2 in Mitchell at Col. 5, line 60 – Col. 7, line 44. These examples represent Mitchell's process of cleaning in the presence of CO₂. In both Examples 1 and 2, carbon dioxide was used to clean the substrates.

Furthermore, at Col. 5, lines 46 – 49, Mitchell states that, after the garments are placed into the cleaning chamber:

The chamber is *filled with CO₂* and programmed through the appropriate pressure and temperature *cleaning pathway*. Other cleaning adjuncts can be added during this procedure to improve cleaning.

The above-referenced examples and passage clearly indicate that according to the disclosure of Mitchell, any and all substrate cleaning takes place in the presence of carbon dioxide. By contrast, Applicants' Claims 1, 2, 33, 50, 57, and 58, as amended herein, (and all claims depending therefrom) are directed to a process requiring a step in which at least some cleaning occurs in the presence of at least one organic solvent as defined therein, but in the *absence of* liquid carbon dioxide.

Jureller does not remedy the defects of Mitchell. Jureller merely discloses surfactants that can be combined with densified CO₂. (*See e.g.* Col. 2, ln 22 – 27). The surfactants have a supercritical fluid CO₂-philic functional moiety connected to a supercritical fluid CO₂-phobic functional moiety. (*See* Col. 2, ln 25 – 28). This disclosure does not do anything to overcome the express teaching away of Mitchell. Mitchell teaches away from contaminant removal in the absence of CO₂ by teaching that all contaminant removal takes place exclusively in the presence of CO₂. For these reasons, neither Mitchell or Jureller, alone or in combination, provide any suggestion or motivation to combine those references so as to successfully arrive at Applicants' invention.

2. Each and every one of Applicants' claim limitations not disclosed or suggested by Mitchell and Jureller.

Even assuming, *arguendo*, that motivation to combine Mitchell and Jureller did exist at the time of Applicants' invention, which is not admitted herein, no *prima facie* case of obviousness can be made out because Mitchell and Jureller do not disclose each of the claim limitations of the present claims.

It is well settled that in order to establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Applicants' invention, as embodied in pending claims 1, 2, 33, 50, 57, and 58 as amended herein (and all claims depending therefrom), is directed to a process for cleaning a substrate comprising, *inter alia*, cleaning the substrate for a period of time sufficient to remove a desired level of a contaminant from the substrate with at least one organic

solvent (of defined formula) in absence of pressurized fluid solvent (e.g. liquid carbon dioxide), and removing the organic solvent from the substrate using at least one pressurized fluid solvent.

As is discussed in detail above, neither Mitchell or Jureller individually disclose or suggest a step of cleaning a substrate for a period of time sufficient to *remove* a desired level of a contaminant from the substrate with at least one organic solvent in *absence of* pressurized fluid solvent. Therefore, the combination of Mitchell and Jureller does not teach or suggest all the claim limitations and thereby lacks the first element necessary for establishing a *prima facie* case of obviousness (MPEP §2143).

3. Conclusion: no *prima facie* case for obviousness exists.

Because at least two elements of the test for *prima facie* obviousness as set out in MPEP §2143 have not been met (i.e., no suggestion or motivation to combine and all claimed elements not disclosed), no *prima facie* case for obviousness can be made. Withdrawal of the rejection under 35 U.S.C. § 103(a) as unpatentable over Mitchell and Jureller is therefore respectfully requested.

II. Rejection under 35 U.S.C. § 102(b) as being anticipated by United States Patent No. 5,866,005 (DeSimone).

Claims 1 – 102 stand rejected under 35 U.S.C. § 102(b) as being anticipated by DeSimone. This rejection is respectfully traversed.

In order to anticipate a claim, a reference must contain each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Company*, 221 U.S.P.Q. 481 (Fed. Cir. 1984) and *Verdegaal Bros. v. Union Oil Co. of California*, 814 F. 2d 628, 631, 2 USPQ2d 1051, 1 (Fed. Cir. 1987). Additionally, the reference must “sufficiently describe the claimed invention to have placed the public in possession of it.” *Minnesota Mining & Mfg. Co. v. Johnson & Johnson Orthopedics, Inc.*, 976 F. 2d 1559, 1572, 24 U.S.P.Q.2d 1321, 1332 (Fed. Cir. 1992). As will be discussed in detail below, DeSimone does not disclose each and every element (arranged as in Applicants’ invention) of any of Applicants’ Claims 1, 2, 33, 50, 57, 58, as amended herein (and all claims depending therefrom). Specifically, DeSimone does not disclose a step of cleaning a substrate for a period of time sufficient to remove a desired level of a contaminant from the substrate with at least one

organic solvent in the *absence of* pressurized fluid solvent. Consequently, DeSimone cannot anticipate Applicants' claims as amended herein.

1. DeSimone does not disclose a step of removing contaminant in the absence of pressurized fluid solvent.

The Examiner states that DeSimone discloses prior art systems that use liquid carbon dioxide to remove oils from substrates. (Office Action, p. 5). According to the Examiner, the oil, even if not intended as a cleaner would have the effect of dissolving oil soluble matter, and the subsequent dissolution of the oil in liquid carbon dioxide would thus remove the oil. (Office Action, p. 5 –6). The Examiner further states that DeSimone discloses various organic/silo organic solvents and that DeSimone states “the co-solvent or modifier can be used prior to, during or after the substrate is contacted by the carbon dioxide fluid.” (Office Action, p. 6). However, DeSimone does not anticipate Applicants' instant invention as embodied in presently amended Claims 1, 2, 33, 50, 57 and 58 (and all claims depending therefrom) because DeSimone fails to disclose a step that is required by Applicants' pending claims.

Specifically, Applicants' claims require a step of cleaning a substrate for a period of time sufficient to remove a desired level of a contaminant from the substrate “in presence of at least one organic solvent and in *absence of pressurized fluid solvent...*” DeSimone simply does not disclose or suggest this step. When given a full and fair reading, DeSimone is directed to a carbon dioxide-based cleaning process. Specifically, the process comprises contacting a contaminant-containing substrate with a carbon dioxide fluid containing an amphiphilic species. (See Col. 2, ln. 2 – 9). The contaminant associates with the amphiphilic species and becomes entrained in the carbon dioxide fluid. The only cleaning disclosed by DeSimone occurs exclusively in the presence of pressurized carbon dioxide. See, for example, Col. 2, lines 2 – 5, of DeSimone, which states that:

Specifically, the process comprises contacting the substrate to a carbon dioxide fluid containing an amphiphilic species so that the contaminant associates with the amphiphilic species and becomes entrained in the carbon dioxide fluid.

Furthermore, DeSimone states that “it is an object of...[the] invention to provide a process for separating a wide range of contaminants from a substrate which *does not require organic solvents.*” (Col. 1, lines 60 – 63).

The Examiner refers to a sentence in DeSimone apparently with the view that DeSimone discloses removal of a contaminant with a co-solvent in absence of pressurized carbon dioxide. However, when read in its proper context, DeSimone does not make such a disclosure. The sentence referred to by the Examiner reads that "...the co-solvent or modifier can be used prior to, during, or after the substrate is contacted by the carbon dioxide fluid." (Col. 3, lines 39 – 40). This sentence does not mean that the co-solvent can be contacted with the substrate in the absence of carbon dioxide as the Examiner appears to suggest. Instead, it means that the co-solvent can be added *to the carbon dioxide* prior to, during or after the substrate is contacted by the carbon dioxide. This latter meaning is clear from the face of DeSimone's disclosure. For example, at Col. 2, lines 64 – 66, DeSimone states that (emphasis added):

In particular, **a co-solvent or modifier is a component of a CO₂-based cleaning formulation** that is believed to modify the bulk solvent properties of the medium **to which it is added**. Advantageously, the use of the co-solvents **in** low polarity compressible fluids such as carbon dioxide have been observed to have a dramatic effect on the solvency of the fluid medium.

The above passage clearly indicates that any co-solvent utilized according to the disclosure of DeSimone is to be added to the CO₂ fluid itself (and therefore necessarily is in the presence, not absence, of CO₂).

Because DeSimone does not disclose or suggest a step that is required by Applicants' Claims, DeSimone cannot anticipate Applicants' claims. Again, in order to anticipate, a reference must contain *each and every element* of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Company*, 221 U.S.P.Q. 481 (Fed. Cir. 1984) and *Verdegaal Bros. v. Union Oil Co. of California*, 814 F. 2d 628, 631, 2 USPQ2d 1051, 1 (Fed. Cir. 1987).

2. All cleaning need not be done exclusively by the organic solvent for a finding of patentability.

In the Office Action dated July 8, 2003, the Examiner noted, in paragraph 3, that in the interview of May 9, 2003:

Applicants' were very clear, and emphatic, that the cleaning was accomplished exclusively by the "organic solvent". This distinction is absolutely critical to any finding of patentability because such a system would seemingly allow for the separation of the liquid carbon dioxide from the organic solvent without converting the carbon dioxide to its gaseous form. This insolubility is absolutely

central to the invention. The invention is not considered patentable if the carbon dioxide takes part in the cleaning (as is disclosed in the specification and the prior art of record), rather the organic solvent must be the sole and exclusive agent used in all cleaning. Seemingly, the only way this can occur is if the “organic solvent”, exclusively and completely removes – and holds – all the soiling contaminants. The carbon dioxide cannot contribute in any meaningful way to the cleaning process.

Applicants respectfully disagree with the Examiner’s conclusions and would like to further clarify the record. While the Examiner is correct that prior art of record discloses processes for cleaning in the presence of carbon dioxide, this does not, as the Examiner asserts, foreclose patentability of any future process that, in some portion, may involve a step of cleaning a substrate in the presence of carbon dioxide.

It is well settled that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Lindemann Maschinenfabrik GMBH, supra; Verdegaaal Bros., supra.* Accordingly, a prior reference that discloses elements A, B, and C does not anticipate a later patent claim that requires elements A, B, C, and D because the later patent claim requires an element not disclosed by the prior reference. In other words, the key inquiry regarding anticipation is not whether a later patent claim comprises an element that may be disclosed in an earlier reference. Rather, the pertinent inquiry is whether the later patent claim requires an element not disclosed by the earlier reference. If the answer to this later query is ‘yes’, the earlier reference cannot anticipate the later patent claim.

As is discussed in detail above, in the present case, Applicants’ Claims 1, 2, 33, 50, 57 and 58 as amended herein (and all claims depending therefrom) require at least one element that is not disclosed or suggested by DeSimone (or by Mitchell or Jureller). Specifically, Applicants’ claims require a step of “cleaning the substrate for a period of time sufficient to remove a desired level of a contaminant from the substrate in presence of at least one organic solvent and in absence of pressurized fluid solvent...” The Examiner has pointed to no prior art that discloses the limitations required by this step.

The Examiner is correct that in one embodiment of the invention, stains can be removed by an organic solvent with pressurized fluid solvent not contributing in any significant way to the cleaning process. However, as is clear from the specification (*See e.g.* p. 23, lines 30 – 31, p. 24, lines 1 – 3 and p. 24 lines 30 – 31), Applicants’ invention is also directed to embodiments

wherein, *inter alia*, a portion of the organic solvent (with contaminant therein) is removed in the absence of pressurized fluid solvent. Some amount of residual contaminant may or may not still be left in presence of the remaining organic solvent and substrate. If some amount of contaminant remains on the substrate, it can be removed during the subsequent step of removing remaining organic solvent with pressurized fluid solvent. As is discussed in detail immediately above, this fact does not negate patentability of the present claims.

3. The term “oil” as used by DeSimone is, at the very least, something different than an “organic solvent”.

The Examiner correctly notes that DeSimone discloses a method of using liquid carbon dioxide to remove oils from substrates. (See Office Action, p. 5). However, the Examiner further states that “[t]he oil, even if not intended as cleaners would have the effect of dissolving oil soluble matter, and the subsequent dissolution of the oil in liquid carbon dioxide would thus remove the oil...” (See Office Action at p. 6). In other words, the Examiner appears to be asserting that the oil disclosed in DeSimone, even though described by DeSimone as the very contaminant sought to be removed, could somehow act as a cleaning agent removing oil soluble materials. Even assuming, *arguendo*, that this were true, which is not admitted, DeSimone does not anticipate Applicants’ claims because an “oil” as disclosed by DeSimone is not an organic solvent, and in particular, an oil is not an organic solvent meeting Applicants’ structural definitions.

Applicants’ Claims as amended herein are directed to a process that calls for, *inter alia*, a step of removing contaminant from a substrate in presence of at least one **organic solvent** (not oil) and in absence of pressurized fluid solvent. Moreover, the organic solvents are defined in Applicants’ claims. Nowhere does DeSimone require, disclose or suggest this step. Even when viewed according to the Examiner’s oil hypothetical, the missing elements are still not present. The term “oil”, although undefined in DeSimone, is clearly not the same thing as an organic solvent meeting the definitions provided by Applicants’ Claims 1, 2, 33, 50, 57 and 58 as amended herein (and all claims depending therefrom). Therefore, even if, as the Examiner asserts, an oil according to DeSimone would have the effect of dissolving oil soluble matter, such disclosure still does not anticipate Applicants’ claims.

Furthermore, Applicants’ claims as amended herein require a step in which at least some contaminant is removed from a substrate in the absence of pressurized fluid solvent. As is

discussed in detail above, DeSimone clearly does not disclose this. According to DeSimone, any and all contaminant removal is done in the presence of carbon dioxide. This conclusion is supported not only by DeSimone (as discussed above), but also by the Examiner's own summary of DeSimone. For example, in the Office Action at pages 5 - 6, the Examiner states that "[t]he oil, even if not intended as cleaners would have the effect of dissolving oil soluble matter, and the subsequent dissolution of the oil *in liquid carbon* dioxide would thus *remove the oil.*" (Office Action, p. 6, emphasis added).

Because DeSimone does not disclose each and every element of Applicants' Claims 1, 2, 33, 50, 57 and 58 as amended herein (and all claims depending therefrom), these claims are therefore not anticipated by DeSimone. Withdrawal of the rejection under 35 U.S.C. § 102(b) as unpatentable over DeSimone is therefore respectfully requested.

III. Rejection under 35 U.S.C. § 112, first paragraph.

Claims 1 – 102 stand rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement. This rejection is respectfully traversed.

The Examiner states that there is no recitation supporting the proposition that "substantially all of a contaminant" is removed with the organic solvent. While Applicants' believe that this disclosure is sufficiently definite with respect to a person of ordinary skill in the art, Applicants' have amended this claim language in order to expedite prosecution. Specifically, Claims 1, 2, 33, 50, 57, and 58 (and, by dependency, all claims depending therefrom) have been amended herein to provide, *inter alia*, "[a] process for cleaning a substrate selected from the group consisting of a textile, a flexible structure, a precision structure, a delicate structure, and a porous structure, comprising: cleaning the *substrate for a period of time sufficient to remove a desired level of a contaminant from the substrate* in presence of at least one organic solvent and in absence of pressurized fluid solvent, the organic solvent comprising less than 50% by weight water...".

Support for this amendment can be found at least at page 23, lines 30 – 31. This amendment makes clear that, in performing the process recited in the relevant claims, any desired level of contaminant can be removed from the substrate (in the presence of at least one organic solvent and in the absence of liquid CO₂) as long as some amount of contaminant is indeed removed.

As is discussed above, contrary to the Examiner's statements in the Office Action dated July 8, 2003, Applicants' respectfully believe that cleaning does not need to be accomplished exclusively by the organic solvent. Such a distinction is not critical to any finding of patentability at least for the reasons discussed in detail hereinabove. To reiterate, Applicants' step of "cleaning the substrate for a period of time sufficient to *remove* a desired level of a contaminant from the substrate in presence of at least one organic solvent and in *absence of pressurized fluid solvent...*" is not taught or suggested in the prior art of record. Withdrawal of the rejection under 35 U.S.C. § 112, first paragraph is therefore respectfully requested.

IV. Additional comments regarding the interview of May 9, 2003.

Applicants reiterate their appreciation for Examiner's courtesy in conducting the interview on May 9, 2003. At this time, Applicants would like to provide additional response to the Examiner's comments on the interview that were presented in the Office Action dated July 8, 2003. The Examiner's comments with respect to paragraph 3 are addressed in section II of this paper.

With respect to paragraph 5, the Examiner states that:

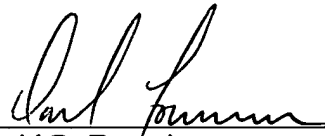
The failure to provide the requisite claim construction, in absolutely unambiguous terms, meaningfully alters the substance of the amendments. At this time applicant shall provide an explicit explanation, on the record, as to exactly why the claims are being amended, how the amendments narrow the claims, what is meant by the amendments, and how the amendments distinguish the claims from the prior art of record.

Applicants' respectfully submit that it is unclear what authority the Examiner is relying on (and the Examiner has cited none) in demanding that Applicants provide "an explicit explanation, on the record, as to exactly why the claims are being amended, how the amendments narrow the claims, what is meant by the amendments, and how the amendments distinguish the claims from the prior art of record." Applicants respectfully submit that they have and continue to, in good faith, work with the Examiner in prosecution of the instant Application. In the present amendment, Applicants have proposed amendments to facilitate expeditious allowance of the pending claims. Furthermore, Applicant's have provided argument to address all of the Examiner's outstanding concerns.

V. Concluding Remarks.

Applicants submit that in light of the amendments and arguments provided herein, all pending claims of the present Application are in condition for allowance. Applicants respectfully request entry of the proposed amendment and allowance of the claims. If, in the opinion of the Examiner, a telephone conference would help expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,



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Enclosure

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The American Heritage® Dictionary of the English Language: Fourth Edition. 2000.

remove

SYLLABICATION: re·move

PRONUNCIATION:  rĭ-mōv'

VERB: Inflected forms: **re·moved**, **re·mov·ing**, **re·moves**

TRANSITIVE VERB: 1. To move from a place or position occupied: *removed the cups from the table*. 2. To transfer or convey from one place to another: *removed the family to Texas*. 3. To take off: *removed my boots*. 4. To take away; withdraw: *removed the candidate's name from consideration*. 5. To do away with; eliminate: *remove a stain*. 6. To dismiss from an office or position.

INTRANSITIVE VERB: 1. To change one's place of residence or business; move: "*In 1751, I removed from the country to the town*" (David Hume). 2. To go away; depart. 3. To be removable: *paint that removes with water*.

NOUN: 1. The act of removing; removal. 2. Distance or degree of separation or remoteness: "*to spill, though at a safe remove, the blood of brave men*" (Anthony Burgess).

ETYMOLOGY: Middle English *removen*, from Old French *remouvoir*, from Latin *removĕre* : re-, re- + *movĕre*, to move; see [move](#).

OTHER FORMS: **re·mov'er** —NOUN

Th
Clea
Natu
Toxic
remo
resul
www.a

Silen
Rem
Rem
fast a
the In
Rem
http://w
Nailer

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